

Researcher Links 'Silent Epidemic' to Hidden Pathogen

December 4 2008

(PhysOrg.com) -- A North Carolina State University researcher has discovered that certain tick-borne bacteria may be responsible for some chronic and debilitating neurological illnesses in humans, particularly among people with substantial animal contact or arthropod exposure.

Dr. Edward Breitschwerdt, professor of internal medicine at NC State's College of Veterinary Medicine and adjunct professor of medicine at Duke University, studied the bacteria *Bartonella* to determine how long these bacteria induce active infection in humans. The most commonly known *Bartonella*-related illness is cat scratch disease, caused by *B. henselae*, a strain of *Bartonella* that can be carried in a cat's blood for months to years.

Cat scratch disease was thought to be a self-limiting, or "one-time" infection; however, Breitschwerdt's previous work discovered cases of children and adults with chronic *Bartonella* infections - from strains of the bacteria that are found in cats (*B. henselae*) and dogs (*B. vinsonii* subsp. *berkhoffii*).

In a study published in the September volume of the *Journal of Clinical Microbiology*, Breitschwerdt and colleagues from the Duke University Medical Center and the Centers for Disease Control and Prevention in Atlanta were able to detect one or more strains of *Bartonella* in blood samples from six patients suffering from a broad spectrum of neurological and neurocognitive abnormalities, including chronic migraines, seizures, memory loss, disorientation and weakness.

All of the patients in the study had both frequent tick exposure and significant animal exposure – some were veterinarians, others had grown up on farms or had occupations that kept them outdoors – and all of them suffered from chronic, debilitating neurological problems.

The patients were treated with antibiotics, and three of them saw marked improvement. In the other cases, improvements were minimal or short-term.

Breitschwerdt believes that his research offers hope – perhaps the identification of a specific infectious cause of chronic neurological disease and another potential avenue of treatment – for what could be a significant segment of the population.

"Bartonella has been described by some scientists as a 'stealth pathogen,'" he says. "Our research could lead to the elimination of what may be a silent and currently unrecognized epidemic among humans."

Provided by North Carolina State University

Citation: Researcher Links 'Silent Epidemic' to Hidden Pathogen (2008, December 4) retrieved 23 April 2024 from <https://phys.org/news/2008-12-links-silent-epidemic-hidden-pathogen.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.